Application No. 10/003,462 Attorney Docket: 30797-717.201

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. The following amendments do not constitute an admission regarding the patentability of the amended subject matter and should not be so construed. Applicants reserve the right to pursue the subject matter of the canceled claims in this or any other appropriate patent application. Applicants believe that the following amendments add no new matter.

## Please amend the Claims as follows:

- 1. (Currently amended) A vaccine Vaccine composition containing self-TGF $\alpha$  or any derived or its combination with other EGF-R ligands, coupled with any carrier protein genetically by genetic cloning before expression of said proteins or by chemical conjugation after expression of said proteins that contains an adjuvant, able to produce a specific immune response against said the self-TGF $\alpha$ .
- 2. (Currently amended) <u>A vaccine</u> Vaccine composition according to claim 1 containing recombinant human TGFα.
- 3. (Currently amended) <u>A vaccine</u> Composition according to claim 1 wherein the carrier protein used is P64k.
- 4. (Currently amended) A vaccine Vaccine composition according to claim 1 that contains a recombinant fusion protein between TGFα and P64k wherein a gene encoding said fusion protein is cloned in [[any]] an expression vector system such as: and expressed in mammalian cells, bacteria or yeast.
- 5. (Currently amended) A vaccine Vaccine composition according to claim 1 that contains a recombinant fusion protein between TGFα and P64k wherein a gene encoding said fusion protein is cloned in an expression vector a expression vector of bacteria and expressed in E. coli.

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6. (Currently amended) A vaccine Vaccine Composition according to claim 1 that contains a recombinant fusion protein between hTGFα and P64k wherein a gene encoding said fusion protein is cloned in an expression vector a expression vector of bacteria that presents a genetic sequence coding for six histidines in the N-terminal end of P64k and is expressed in E. coli.

- 7. (Currently amended) <u>A vaccine</u> Vaccine composition according to claim 1 that contains a chemical conjugated between TGFα and P64k.
- 8. (Currently amended) <u>A vaccine Vaccine</u> composition according to claim 1 that contains TGFα, EGF and P64k coupled by a chemical method.
- 9. (Currently amended) A vaccine Vaccine composition according to claim 1 that contains TGFα, EGF and P64k in a recombinant fusion protein wherein a gene encoding said fusion protein is cloned in an expression vector a expression vector of bacteria and expressed in E. coli.
- 10. (Currently amended) A vaccine Vaccine composition that represents the mix of two vaccine preparations containing the chemical conjugated between P64k and TGF $\alpha$  or EGF respectively in the moment of the injection.
- 11. (Currently amended) A vaccine Vaccine composition that represents the mix of two vaccine preparations containing fusion proteins between the P64k and TGF $\alpha$  or EGF respectively in the moment of injection.
- 12. (Currently amended) <u>A vaccine Vaccine</u> composition according to claim 1 wherein the adjuvant is incomplete adjuvant of Freund.
- 13. (Currently amended) <u>A vaccine</u> Vaccine composition according to claim 1 wherein the adjuvant is <u>Al(OH)</u><sub>3</sub> <del>Al(OH)</del><sub>3</sub>.
- 14. (Withdrawn) Immunization method with a vaccine composition according to claim 1, able to achieve specific antibodies against hTGF $\alpha$ .
- 15. (Withdrawn) Treatment method according to claim 14, able to generate anti-hTGFα antibodies, capable of avoid the TGFα bind to its receptor in an in vitro experiment.
- 16. (Withdrawn) Treatment method according to claim 14, able to generate anti-hEGF

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antibodies.

17. (Withdrawn) Treatment method according to claim 14, able to generate anti-hTGF $\alpha$  antibodies, able of recognize TGF $\alpha$  in human tumor biopsies.

18. (Withdrawn) Method of treatment of malignant diseases, such as epidermoide breast carcinomas, prostate, gastric, ovary epithelial cancer that express  $TGF\alpha$  and other ligands of EGF-R, such as EGF, with a vaccine composition according to claim 1.